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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Norifumi SUMIMOTO

Application No.: 10/547,191

Filed: September 29, 2006

Attorney Docket No.: 7378/88305

Confirmation No. Not Yet Assigned

Customer No.: 42798

For: THERMOPLASTIC RESIN COMPOSITION AND RESIN MOLDING

**SUBMISSION OF ENGLISH TRANSLATION OF  
INTERNATIONAL PRELIMINARY REPORT**

Commissioner for Patents  
Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Sir:

Applicants submit herewith a copy of the English translation of the International Preliminary Report issued for the basic PCT application (PCT/JP2005/005515) of the above-referenced application.

Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY



Kendrew H. Colton  
Registration No. 30,368

Date: December 12, 2006

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From the INTERNATIONAL BUREAU

**PCT**

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY  
(CHAPTER I OR CHAPTER II)  
OF THE PATENT COOPERATION TREATY  
(PCT Rules 44bis.3(c) and 72.2)

To:

IDE, Masatake  
M. IDE & CO.  
9F, Gobancho Grand Bldg.  
3-1, Gobancho  
Chiyoda-ku  
Tokyo, 1020076  
JAPON

Date of mailing (day/month/year) 26 October 2006 (26.10.2006)	
Applicant's or agent's file reference IFP-711	<b>IMPORTANT NOTIFICATION</b>
International application No. PCT/JP2005/005515	International filing date (day/month/year) 25 March 2005 (25.03.2005)
Applicant Techno Polymer Co., Ltd. et al	

**1. Transmittal of the translation to the applicant.**

- The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).
- The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

**2. Transmittal of the copy of the translation to the designated or elected Offices.**

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

None

The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

**3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).**

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

**It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.**

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer  Yoshiko Kuwahara
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**PATENT COOPERATION TREATY**  
**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference IFP-711	<b>FOR FURTHER ACTION</b>		See item 4 below
International application No. PCT/JP2005/005515	International filing date ( <i>day/month/year</i> ) 25 March 2005 (25.03.2005)	Priority date ( <i>day/month/year</i> ) 31 March 2004 (31.03.2004)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant Techno Polymer Co., Ltd.			

<ol style="list-style-type: none"> <li>1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).</li> <li>2. This REPORT consists of a total of 8 sheets, including this cover sheet.  In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.</li> <li>3. This report contains indications relating to the following items: <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Box No. I Basis of the report</li> <li><input type="checkbox"/> Box No. II Priority</li> <li><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li><input checked="" type="checkbox"/> Box No. IV Lack of unity of invention</li> <li><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li><input checked="" type="checkbox"/> Box No. VI Certain documents cited</li> <li><input type="checkbox"/> Box No. VII Certain defects in the international application</li> <li><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</li> </ul> </li> <li>4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).</li> </ol>
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Date of issuance of this report 19 October 2006 (19.10.2006)	
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. +41 22 338 82 70	Authorized officer  <b>Yoshiko Kuwahara</b> e-mail: pt07@wipo.int

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

**TRANSLATION**  
**PCT**

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

			Date of mailing (day/month/year)
Applicant's or agent's file reference <b>IFP-711</b>		<b>FOR FURTHER ACTION</b> See paragraph 2 below	
International application No. <b>PCT/JP2005/005515</b>	International filing date (day/month/year) <b>25.03.2005</b>	Priority date (day/month/year) <b>31.03.2004</b>	
International Patent Classification (IPC) or both national classification and IPC			
Applicant <b>Techno Polymer Co., Ltd.</b>			

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP	Authorized officer
Facsimile No.	Telephone No.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.  
PCT/JP2005/005515

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.  
 This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material  
 a sequence listing  
 table(s) related to the sequence listing
  - b. format of material  
 in written format  
 in computer readable form
  - c. time of filing/furnishing  
 contained in the international application as filed.  
 filed together with the international application in computer readable form.  
 furnished subsequently to this Authority for the purposes of search.
3.  In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/005515

Box No. IV      Lack of unity of invention

1.  In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has:
  - paid additional fees
  - paid additional fees under protest
  - not paid additional fees
2.  This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is:
  - complied with
  - not complied with for the following reasons:

Although the invention relating to claim 6 is an antistatic agent having no specific target for blending, the thermoplastic resin composition in claim 1 is the invention of a resin composition wherein no provision exists for this antistatic agent. Therefore, no clear common feature exists between the independent claims 1 and 6. In addition, the thermoplastic resin composition having a specified amount of outgas and the antistatic agent were not recognized as being closely linked by parties skilled at the time of filing the present application. Therefore, because there is no relationship among these groups of inventions involving common special technical features according to PCT Rule 13.2, they cannot be said to be a group of inventions so linked as to form a single general inventive concept.

4. Consequently, this opinion has been established in respect of the following parts of the international application:

- all parts
- the parts relating to claims Nos. \_\_\_\_\_

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.	PCT / JP2005/005515
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Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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**1. Statement**

Novelty (N)	Claims	3-6, 8	YES
	Claims	1, 2, 7, 9	NO
Inventive step (IS)	Claims		YES
	Claims	1-9	NO
Industrial applicability (IA)	Claims	1-9	YES
	Claims		NO

**2. Citations and explanations:**

Document 1: JP 2000-136295 A (Dainippon Ink and Chemicals, Inc.)

16 May 2000

Document 2: WO 2003/033377 A1 (Shin-Etsu Polymer Co., Ltd.)

24 April 2003

Document 3: JP 8-048768 A (Sanyo Chemical Industries, Ltd.)

20 February 1996

Document 4: JP 2004-090609 A

(Daisaku Pakku Systems Kabushiki Kaisha)

25 March 2004

Because claims 1 and 9 are disclosed in documents 1 and 2 cited in the ISR respectively, they do not appear to be novel. Documents 1 and 2 disclose a thermoplastic resin composition wherein the amount of outgas is controlled within a specified range, and describe a carrier for a semi-conductor device as an application.

Because claims 2 and 7 are described in document 1 cited in the ISR, they do not appear to be novel. Document 1 discloses controlling the surface resistivity of a molding to  $1 \times 10^{11}\Omega$  by blending a specified amount of an antistatic agent in a thermoplastic resin composition.

Claim 3 does not appear to involve an inventive step based on documents 1, 2 and 4 cited in the ISR. Using a styrene resin such as ABS as a resin material to constitute a carrier for a semi-conductor is a commonly known technical matter in this technical field, as suggested in cited document 4 for example.

Claims 4-6 do not appear to involve an inventive step based on documents 1, 2, 3 and 4 cited in the ISR. Documents 3 and 4 disclose that a polyamide elastomer containing polyamide 12 segments and poly(alkylene oxide) glycol segments functions as an antistatic agent for a thermoplastic resin. Because the chemical structure of the elastomer in documents 3, 4 does not differ particularly from that of the elastomer in claims 4-6 of the present application, it is expected that its refractive index, melting point, viscosity and surface resistivity will also be either equal to those of the present application or of a level that could be easily employed by a party skilled in the art.

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT / JP2005/005515

Box No. VI Certain documents cited

1. Certain published documents (Rule 43bis.1 and 70.10)

Application No.  
Patent No.

Publication date  
(day/month/year)

Filing date  
(day/month/year)

Priority date (valid claim)  
(day/month/year)

**JP 2005-112883 A      28.04.2005      02.10.2003**

**[EX]**

2. Non-written disclosures (Rule 43bis.1 and 70.9)

Kind of non-written disclosure

Date of non-written disclosure  
(day/month/year)

Date of written disclosure  
referring to non-written disclosure  
(day/month/year)

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/005515

Box No. VIII      Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Claim 1 attempts to specify a thermoplastic resin composition by a target value to be achieved for the amount of outgas, but specifying a resin composition by the amount of outgas from unspecified materials, that is to say an amount having no direct relationship with the chemical constitution of a thermoplastic resin composition, is generally difficult. In addition, even looking at the description in the specification, it is not found that a general manufacturing method able to regulate the amount of outgas within a specified range for an unspecified resin composition is sufficiently disclosed. Furthermore, because the features of claims 2-9 are not directly related to the amount of outgas, it is not intended to specify the chemical constitution of a resin composition from the perspective of the amount of outgas. Therefore, it cannot be said that the inventions of claims 1-9 are clearly constituted or adequately supported by the specification.

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2005/005515

**Supplemental Box**

In case the space in any of the preceding boxes is not sufficient.

Continuation of:

Claim 8 does not appear to involve an inventive step based on documents 1, 2 and 4 cited in the ISR. It is found that constituting a molding satisfying the requirements of claim 8 by using a publicly known resin material having an abrasion index suitable for use in a semi-conductor carrier could be easily conceived of by a party skilled in the art.